

**REMARKS**

Applicant submits these Remarks in reply to the Office Action mailed February 26, 2009 ("Office Action"). Claims 1, 3-7, and 9-13, and 15-18 are pending in this application, of which claims 1, 7 and 13 are independent.

In the Office Action, the Office took the following actions:

- (1) rejected claims 1 and 3-6 under 35 U.S.C. § 101 as allegedly directed to non-statutory subject matter; and
- (2) rejected claims 1, 3-7, 9-13, and 15-18 under 35 U.S.C. § 103(a) as being unpatented over U.S. Patent No. 7,251,612 ("Parker") in view of U.S. Patent No. 7, 212,984 ("Wolfe") and "Cyclic Transfer Algorithms for Multivehicle Routing and Scheduling Problems ("Thompson").<sup>1</sup>

Applicant respectfully traverses the above rejections as follows.

**I. Request to Withdrawal Finality of Office Action**

Fundamentally, the finality of the current Office Action is improper in light of the requirements set forth in the Manual of Patent Examining Procedure ("MPEP") § 706.07(d). In each of the office actions in this matter (February 26, 2009 and August 18, 2008) the Office rejected claims 5-6, 11-12, and 17-18 under 35 U.S.C. § 103, but failed to provide an explanation as to why those particular claims were rejected such that the Applicant has a fair opportunity to reply. Applicant previously

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<sup>1</sup> Claim 15 does not appear in paragraph 7, but it is mentioned on page 6 of the Office Action.

brought this to the Office's attention in its response to the August 18, 2008 Office Action. However, the current Office Action ignores this request and, instead merely refers to claims 5-6, 11-12 and 17-18 in its rejection on pages 4-6 of the February 26, 2009 Office Action but withholds any articulated basis for its rejection of those claims.

MPEP § 706.02(j) explains how this is improper. Specifically, MPEP § 706.02(j) provides that:

After indicating that the rejection is under 35 U.S.C. 103, the examiner should set forth in the Office action:

- (A) the relevant teachings of the prior art relied upon, preferably with reference to the relevant column or page number(s) and line number(s) where appropriate,
- (B) the difference or differences in the claim over the applied reference(s),
- (C) the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter, and
- (D) an explanation as to why the claimed invention would have been obvious to one of ordinary skill in the art at the time the invention was made.

As each of the proceeding Office Actions failed to comply with these requirements, each of the rejections was inappropriate. Indeed, by failing "to clearly articulate [the] rejection early in the prosecution process," Applicant has not had "the opportunity to provide evidence of patentability and otherwise reply completely . . . ." MPEP § 706. Moreover, for a Final Rejection to be proper, "the examiner shall repeat or state all grounds of rejection then considered applicable to the claims in the application, *clearly stating the reasons in support thereof.*" MPEP § 706.07(b) (emphasis added). As neither Office Action "clearly stat[ed] the reasons in support" of

the rejections, Applicant submits that the finality of the rejection of such claims was improper. In view of the foregoing, Applicant respectfully requests that the finality of the Office Action of February 26, 2009 be withdrawn.

**II. 35 U.S.C. § 101**

Applicant respectfully traverses the rejection of claims 1 and 3-6 under 35 U.S.C. § 101. The Office appears to ignore the "computer-implemented" limitation added to these claims in the prior response. "[A] claimed process is surely patent-eligible under § 101 if: (1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing." *In re Bilski*, 545 F.3d 943, 954 (Fed. Cir. 2008) (en banc). Independent claim 1 is tied to an apparatus as the claim explicitly recites that the method is "computer-implemented." The recited steps of claim 1 are not "purely mental steps" as urged by the Office. In contrast, by reciting the method to be "computer-implemented", independent claim 1 is positively tied to an apparatus in the form of a computer, which performs the recited steps for tour planning. The positive recitation of "computer-implemented" conforms to the machine-or-transformation test set forth in *In re Bilski*.

Therefore, Applicant respectfully submits that claim 1 fully complies with 35 U.S.C. § 101. Claims 3-6 also comply with 35 U.S.C. § 101 due at least to their dependence from independent claim 1. Applicant respectfully requests that the rejection of claims 1 and 3-6 under 35 U.S.C. § 101 be withdrawn.

III. 35 U.S.C. § 103(a)

Applicant respectfully traverses the Office's rejection of claims 1, 3-7, 9-13, and 15-18 under 35 U.S.C. § 103(a). A *prima facie* case of obviousness has not been established with respect to these claims because the combined teachings fail to disclose, teach, or suggest the invention as claimed.

The key to supporting any rejection under 35 U.S.C. § 103(a) is the clear articulation of the reasons why the claimed invention would have been obvious. Such an analysis should be made explicit and cannot be premised upon mere conclusory statements. See M.P.E.P. § 2142, 8th Ed., Rev. 6 (Sept. 2007). "A conclusion of obviousness requires that the reference(s) relied upon be enabling in that it put the public in possession of the claimed invention." M.P.E.P. § 2145. Furthermore, "[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art" at the time the invention was made. M.P.E.P. § 2143.01(III), internal citation omitted. Moreover, "[i]n determining the differences between the prior art and the claims, the question under 35 U.S.C. § 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious." M.P.E.P. § 2141.02(I), internal citations omitted (emphasis in original).

"[T]he framework for objective analysis for determining obviousness under 35 U.S.C. 103 is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 U.S.P.Q. 459 (1966). . . . The factual inquiries . . . [include determining the scope and content of the prior art and] . . . [a]scertaining the differences between the claimed invention and the

prior art." M.P.E.P. § 2141(II). "Office personnel must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art." M.P.E.P. § 2141(III).

**A. The references do not teach "determining whether assigning a load to the first segment of the tour will produce a cost savings over assigning the load to a common carrier."**

The cited references, alone or in combination, do not teach or suggest "determining whether assigning a load to the first segment of the tour will produce a cost savings over assigning the load to a common carrier," as recited in Applicant's independent claims 1, 7, and 13. In rejecting Claims 1, 7, and 13, the Office relies on *Thompson* for teaching "determining whether to transfer loads to the first segment of a tour will produce a cost savings over a common carrier." Office Action at 5. Applicant respectfully disagrees with this reading of *Thompson*. Although *Thompson* teaches "improv[ing] the total cost of a set of routes by transferring small numbers of demands among routes, in a cyclical manner," *Thompson* at p. 936 col. 1, *Thompson* is completely devoid of any mention of whether there will be "a cost savings over assigning the load to a common carrier," as claimed. The cited passage of *Thompson* is limited to analyzing sets of existing routes and in turn creating new routes to optimize cost. See *Thompson* at Figure 1. There is no disclosure, teaching or suggestion that contemplates any analysis of common carrier usage or their rates. Indeed, it is telling that *Thompson* does not once mention common carriers or any consideration of the way in which common carriers may be used to produce a cost savings.

The Office further contends that "the goal of *Thompson* is to minimize transportation costs by analyzing the various segments to determine how goods may be

transported more cheaply if a *particular route* is used." Office Action at 5 (emphasis added). Applicant respectfully also disagrees with this interpretation of *Thompson*. As clearly shown in Figure 1, *Thompson* discloses an algorithm that analyzes a plurality of existing routes between set locations and then proposes a series of alternate routes that form a "feasible solution to a vehicle routing and scheduling problem." See *Thompson* at 936. For instance, before the algorithm is applied, route I<sup>3</sup> shown in Figure 1 of *Thompson* had three stops, C<sub>1</sub>, C<sub>2</sub>, and C<sub>3</sub>. After the algorithm is applied, route I<sup>3</sup> now travels between stops C<sub>1</sub>, B<sub>1</sub>, and B<sub>5</sub>. Essentially, the algorithm concluded that route I<sup>3</sup> and all other routes could be optimized by leaving stops C<sub>2</sub>, and C<sub>3</sub> for a different route and adding stops B<sub>1</sub>, and B<sub>5</sub> to route I<sup>3</sup>. Thus, while the Office contends that *Thompson* optimizes costs for "a particular route," it is clear that *Thompson* teaches generating new routes altogether separate and different from the existing routes. Necessarily, as *Thompson* contemplates generating new routes, there is no consideration of "determining whether assigning a load to the first segment of the tour will produce a cost savings over assigning the load to a common carrier" as claimed. Therefore, none of the cited references teach the claimed subject matter.

The Office takes Official Notice that "using a common carrier to transport goods, rather than a dedicated fleet, is old and well known in the art." While it is known that a common carrier may transport goods, citing to this fact does not cure the defect noted above with *Thompson*. In other words, *Thompson* focuses on creating different sets of routes to achieve cost savings without regard to alternative implementations for how loads may be assigned for a given part of a route. Indeed, even if combined with the fact that a common carrier may transport goods, the combined references fails to teach

or suggest that doing so would predictably result in "determining whether assigning a load to the first segment of the tour will produce a cost savings over assigning the load to a common carrier" as claimed.

Consequently, all of the cited references and Official Notice, whether considered alone or in combination, fail to teach at least one element of independent claims 1, 7, and 13. These teachings also fail to teach at least one element of dependent claims 3-6, 9-12, and 15-18, which necessarily contain the elements of the independent claims. Thus, no *prima facie* case of obviousness exists with respect to claims 1, 3-7, 9-13, and 15-18. Consequently, Applicant respectfully requests the Examiner withdraw the 35 U.S.C. § 103(a) rejections.

**B. The Office Action does not explain why claims 5-6, 11-12, and 17-18 stand rejected.**

As previously noted, the Office Action states claims 5-6, 11-12, and 17-18 are rejected (Office Action at 3), but fails to give any explanation as to why. Accordingly, the Office Action fails to clearly articulate a reason why one of ordinary skill in the art would have arrived at those claims, as required to make a *prima facie* case of obviousness. See M.P.E.P. § 2142 (citing *KSR international Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007).). Accordingly, Applicant respectfully requests that at least those claims be allowed.

**IV. Conclusion**

In view of the foregoing remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

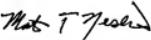
If the Examiner continues to dispute the patentability of the pending claims after considering the above, please call Applicant's undersigned representative, below.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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